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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,845	06/27/2003	Hyou Takahashi	Q76336	4812

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EXAMINER

LE, HOA VAN

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/606,845

Applicant(s)

TAKAHASHI ET AL.

Examiner

Hoa V. Le

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1,5,7,8,11 and 13-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4,6,9-10,12,17-20 and 21 with respect to the elected and applied species is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-21 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

This is in response to Paper filed on 10 March 2005.

- I. The record shows that applicants elect the invention of Group II, claims 2-4, 6, 9-10, 12, 17-20 and 21, without traverse being acknowledged.
- II. The record also shows that applicants elect species of (a) compound A-1 for the chemical structure of the general formula (1) and its counter ion, (b) MM-1 as crosslinking agent, (c) OE-2 nitrogen-containing basic compound and (d) R-20 (tri-unit repeating copolymer) as both (*) alkali-soluble resin and (**) resin capable of...of an acid.
- III. The elected species have been considered and searched. The consideration and search are extended to the applied species. Others have not been considered or searched until the elected and applied species are overcome.
- IV. The language “resin capable of...of an acid”, “...connected...in a conjugated system”, “compound capable of...of an acid”, “nitrogen-containing basic compound” or the like is considered as property of a material and searched as appeared. For a property of a material it is applied in accordance with the authority stated in *In re Schreiber*, 44 USPQ2d 1429 with “A patent applicant is free to recite features of an apparatus either structurally or functionally. See *In re Swinehart*...169 USPQ 226, 228... Yet, choosing to define an element functionally, i.e., by what it does, carries with a risk. As our predecessor court state in *Swinehart*...where the Patent

Art Unit: 1752

Office has reasons that the functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on." A statement or argument alone may have and be given a little to no value because it is not factual evidence.

V. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

The elected invention of claims 2, 6, 9-10, 12, 17-20 and 21 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2-8 and 16 of copending Application No. 10/361,505. Although the conflicting claims are not identical, they are not patentably distinct from each other because they contain the same or about the same requisite chemical ingredients. The applied claims do not limit to "from

Art Unit: 1752

3.6 to 15 wt%” of an acid generating agent as that in the instant claim. Since there is no concentration is disclosed in the applied claims, it is properly considered at any possibly broad amount that would encompass the limited amount in the instant claims. Applicants should show or provide a convincing evidence to the contrary. However, evidence can be seen in application 10/361,505 that an amount from 0.1 to 40 wt% is disclosed on page 33, first paragraph. The applied “BP” polymer includes the repeating units of formulas “X1” and “X2” on page 96 of the application is read on the resin “D” with the repeating units formulas “IV” and “V” in the instant claim 3. The applied polymers, B(15, 22, 25 and 28-37), have a repeating unit ratio of 1:1 to 1:2 on pages 101-106 of the applied application that is read on the ratio of “IV”/“V” in claim 4.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's arguments filed 10 March 2005 have been fully considered but they are not persuasive.

Applicants urge that the applied claims is not limited to “from 3.6 to 15 wt%” of an acid generating agent as that in the instant claim. Since there is no concentration is disclosed in the applied claims, it is properly considered at any possibly broad amount that would encompass the limited amount in the instant claims. Applicants should show or provide a convincing evidence to the contrary. However, evidence can be seen in application 10/361,505 that an amount from 0.1 to 40 wt% is disclosed on page 33, first paragraph. The applied “BP” polymer includes the repeating units of formulas “X1” and “X2” on page 96 of the application is read on the resin “D” with the repeating units formulas “IV” and “V” in the instant claim 3. The applied polymers,

Art Unit: 1752

B(15, 22, 25 and 28-37), have a repeating unit ratio of 1:1 to 1:2 on page 101-106 of the applied application that is read on the ratio of "IV"/"V" in claim 4.

VI. The elected invention of claims 2, 6, 9-10, 12, 17-20 and 21 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 17-20 of copending Application 10/613,044 as amended on 22 February 2005 .

Although the conflicting claims are not identical, they are not patentably distinct from each other because they (1) contain the same or about the same requisite chemical ingredients including the polymer type as claimed. The applied claims do not limit to "from 3.6 to 15 wt%" of an acid generating agent as that in the instant claim. Since there is no concentration is disclosed in the applied claims, it is properly considered at any possibly broad amount that would encompass the limited amount in the instant claims. Applicants should show or provide a convincing evidence to the contrary. However, evidence can be seen in application 10/613,044 that an amount from 0.1 to 20 wt% is disclosed on page 98, second paragraph. The applied "D2" resin includes the repeating units being read on the repeating units formulas "IV" and "V" in the instant claim 3 with the applied resins, B(15, 22, 25 and 28-37). They have a repeating unit ratio of 1:1 to 1:2 on pages 144-152 of the applied application that is read on the ratio of "IV"/"V" in claim 4.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's arguments filed 10 March 2005 have been fully considered but they are not persuasive.

Art Unit: 1752

Claim 16 has been canceled on 22 February 05 and is not applied. The arguments based on it have no value.

Applicants urge that the applied claims is not limited to "from 3.6 to 15 wt%" of an acid generating agent as that in the instant claim. Since there is no concentration is disclosed in the applied claims, it is properly considered at any possibly broad amount that would encompass the limited amount in the instant claims. Applicants should show or provide a convincing evidence to the contrary. However, evidence can be seen in application 10/361,505 that an amount from 0.1 to 20 wt% is disclosed on page 98, second paragraph. The applied "D2" resin includes the repeating units being read on the repeating units formulas "IV" and "V" in the instant claim 3 with the applied resins, B(15, 22, 25 and 28-37). They have a repeating unit ratio of 1:1 to 1:2 on pages 144-152 of the applied reference that is read on the ratio of "IV"/"V" in claim 4.

VII. The elected invention of claims 2-4, 6, 9-10, 12, 17-20 and 21 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 3-4, 6, 8, 11-12, 14, 16, and 18 of Copending Application 10/654,942 as recognized by applicants. Although the conflicting claims are not identical, they are not patentably distinct from each other because they contain the same or about the same requisite chemical ingredients. The applied claims do not limit to "from 3.6 to 15 wt%" of an acid generating agent as that in the instant claim. Since there is no concentration is disclosed in the applied claims, it is properly considered at any possibly broad amount that would encompass the limited amount in the instant claims. Applicants should show or provide a convincing evidence to the contrary. However, evidence can be seen in application 10/654,942 that an amount from 0.1 to 20 wt% is disclosed

Art Unit: 1752

on page 27, second paragraph. The resin "E" in the applied claims broadly includes those in formulas "IV" and "V" in the instant claim 3 together with their ratio in the instant claim 4 at pages 83 and 86 third paragraph of the applied application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicants urge that the applied claims is not limited to "from 3.6 to 15 wt%" of an acid generating agent as that in the instant claim. Since there is no concentration is disclosed in the applied claims, it is properly considered at any possibly broad amount that would encompass the limited amount in the instant claims. Applicants should show or provide a convincing evidence to the contrary. However, evidence can be seen in application 10/654,942 with an amount from 0.1 to 20 wt% being disclosed on page 27, second paragraph. The resin "E" in the applied claims broadly includes those in formulas "IV" and "V" in the instant claim 3 together with their ratio in the instant claim 4 at pages 83 and 86 third paragraph of the applied application.

A claim would have no value if it is found to be read on or within applicants' or Fuji's application claim without a terminal disclaimer.

VIII. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1752

The elected invention of claims 2, 6, 9-10, 12, 17-20 and 21 with respect to the elected and applied species are rejected under 35 U.S.C. 103(a) as being unpatentable over Sinta et al (5,731,364 as submitted) and Sato et al (6,238,842).

Sinta et al disclose, teach and suggest a positive resist composition comprising about 5% (based on weight of a resin) of disulfonium and their counter ions (Sinta et al at col.1:58 and 62 to 2:9 and 43-60, 3:8-18, and 24-38, 4:23 to 5:32, compound A on col.6:1-22 and Example 2) being read within the general formula I as claimed and resin being read on the type as claimed (Sinta et al at col.8:31 to 9:51).

Sinta et al do not specify a nitrogen containing basic compound in the instant claim 6. Sato et al is cited to show the known use of chemical ingredients, especially at col.149:27 to 150:40 to show nitrogen-containing basic compound. It has stronger basic than phenol for accelerating dissolution in an alkaline developing solution.

Since the above references are related to positive photoresist compositions, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use, include or cite a nitrogen-containing compound from Sato et al in Sinta et al positive photoresist compositions for reasonable expectation of obtaining rapid image development as disclosed, taught and suggested in Sato et al.

Applicant's arguments filed 10 March 2005 have been fully considered but they are not persuasive.

Applicants urge that the applied compound "A" has a sulfur contain in a hydrocarbon unit is not in the instant claim formula "1". Please see the instant claim 18 with "B" with "hydrocarbon structure...have...a sulfur atom" being disclosed and claimed.

Art Unit: 1752

Claims 3 and 4 are not rejected over a prior art above and withdrawn from consideration for now because they are not the elected resin "R-20" on the record. It is only required that they will be considered and searched when all of the applied resin on the record are overcome.

IX. The elected invention of claims 2, 6, 9-10, 12, 17-20 and 21 with respect to the elected and applied species are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al (6,406,830).

Inoue et al disclose, teach and suggest a positive resist composition comprising about 4.5 wt% (based on total solid on Examples 2-4) of disulfonium ions being in a conjugated fashion with a hydrocarbon unit in between them as urged and their counter ions being read within the general formula "1" as claimed and resin being read on the type as claimed. Please see the whole disclosure of each of the applied references, especially in Inoue et al at col.2:44-62, 4:63 to 5:28, 6:47 to 11:65, nitrogen-containing basic compound on col.12:2 to 13:29 and Examples. Since Inoue et al disclose, teach and suggest the requisite chemical ingredients in the photoresist compositions as claimed, the above claims are found to be rendered prima facie obvious by Inoue et al.

Applicant's arguments filed 10 March 2005 have been fully considered but they are not persuasive.

Applicants urge that the applied compounds of the general formula "1" do not have disulfonium ions being in a conjugated fashion with a hydrocarbon unit in between them as urged and their counter ions to be read on or within the general formula "1" as claimed. The argument with respect to the functional property of "in a conjugated" fashion of disulfonium

Art Unit: 1752

ions containing compound is a functional property of the compounds of the applied formula "I". It is allowed to request and required applicants to show or provide a convincing evidence to the contrary in accordance with the authority stated in *In re Schreiber*, 44 USPQ2d 1429. Applicants may provide or show that the claimed compound of formula '1' is reacted with a positive resin precursor in a distinct fashion than that with the applied compound of the general "I" with the same resin. For a functional property of a material, arguments alone have and are given a little value in the absence of a convincing evidence as clearly pointed out and set forth on the record.

X. Ochiai et al (6,258,507) and Mizutani et al (6,387,590) are cited to show the state of the art.

XI. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 1752

XII. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa V. Le whose telephone number is 571-272-1332.

The examiner can normally be reached from 6:30 AM to 4:30 PM on Monday through Thursday and about the same time of most Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526.

Applicants may file a paper by (1) fax with a central facsimile receiving number 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hoa V. Le
Primary Examiner
Art Unit 1752

HVL
28 March 2005

HOA VAN LE
PRIMARY EXAMINER

